IN THE CLAIMS:

Claim 1, amend to read as follows:

1. (Amended) A doping process consisting of:

depositing dopant on a surface of a material to be doped; and

incorporating the dopant into the material by pulsed energy processing to produce a dose of at least 10^{14} to 10^{15} cm^{-2} electrically active dopant atoms per energy pulse.

Claim 8, cancel.

Claim 9, amend to read as follows:

9. (Amended) An improved semiconductor doping process comprising:

depositing a layer of dopant atoms/molecules on a surface of a semiconductor, followed by exposure to one or more energy pulses which melts a portion of the semiconductor, forming a molten region thereby causing the dopant atoms/molecules to be incorporated into the molten region at a rate of at least $10^{15}cm^{-2}$ per energy pulse; and

allowing the molten region to recrystallize whereby the dopant atoms/molecules are electrically active in the semiconductor.

Claim 18, amend to read as follows:

18. (Amended) In a process for doping a semiconductor material using pulsed laser energy or pulsed ion-beam energy processing, the improvement comprising:

forming a layer of dopant atoms on a surface of the semiconductor material from the group consisting of BF_3, PF_5, AsH_3, B_2H_6, PH_3, AsF_5, and orgonometallics prior to pulsed energy processing.

Claim 19, line 5, before "greater" insert -- about $10^{2}cm^{-2}$ --.

Objection to Abstract

The objections to the abstract are not understood since the disclosed process does enhance the dopant incorporation of the GILD technique and sets forth potential uses of the process. There are no "speculative applications" and no comparisons with the prior art seen in the abstract. Specific suggestions by the Examiner would be considered if the objection is maintained.

Objection to the Specification and Claims

The objections to pages 3, 4, 7, 8, and 9 and to Claim 7 and 8 have been overcome by the above amendments.

The 35 USC 112 Rejection

Claim 19 is rejected under 35 USC 112, second paragraph, as being indefinite. Claim 19 has been amended to overcome this objection and thus this ground of rejection should be withdrawn.

The 35 USC 102 Rejection

Claims 1, 9, and 16-18 are rejected under 35 USC 102(b) as clearly anticipated by Narayan et al. Claims 1, 9, and 18 have been amended to incorporate the subject matter of Claims 8 and 11, which set forth to doping dose per pulse and the type of dopant. These features are clearly not taught by Narayan et al. and thus this reference fails to support a rejection of these claims as now amended under 35 USC 102, and the rejection should be withdrawn.

The 35 USC 103 Rejection

Claims 2-6, 10-12, 15 and 20 are rejected under 35 USC 103(a) as unpatentable over Narayan et al. Claims 2-6 depend from Claim 1, Claims 10-12 and 15 depend from Claim 9, and Claim 20 depends from Claim 18, and thus now include the amended limitations of their parent claims. Since Narayan et al. fail to